

DESCRIPTIONS OF TEN NEW GENERA AND TWENTY-THREE NEW SPECIES OF ICHNEUMON-FLIES.

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This paper deals chiefly with reared species sent to the Bureau of Entomology, United States Department of Agriculture, for determination.

Family ALYSIIDÆ.

CÆLINIDEA, new genus.

This name is proposed for *Cælinius* Authors not Nees, *Cælinius* Nees being isogenotypic with *Chænon* Curtis.

Type.—(*Stephanus*) *Cælinius niger* (Nees).

ERICCÆLINIUS, new genus.

Related to *Cælinidea* Viereck, from which it can be distinguished by the vertex surpassing the upper plane of the lateral ocelli and by the notauli not meeting posteriorly, in both of which characters it agrees with *Cælinius* Nees, from which it differs in the *Cælinidea*-like venation and in the sternaui attaining the anterior edge of the mesopleuræ.

Type.—*Cælinius longulus* Ashmead.

Family BRACONIDÆ.

ÆROPHILOPSIS, new subgenus.

This subgenus, judging from the original description, agrees best with *Ærophilus* Szepligeti, from which it differs in the notauli being at most developed only along the anterior edge of the dorsulum, in the mesopleuræ having a furrow, in the more or less areolate or rugose propodeum and in the round propodeal spiracles.

Type.—*Bassus* (*Ærophilopsis*) *erythrogaster*, new species.

BASSUS (ÆROPHILOPSIS) ERYTHROGASTER, new species.

Type-locality.—Vienna, Virginia.

Type.—Cat. No. 15276, U.S.N.M.

Male.—Length 4 mm.; black and shining; fore and mid tarsi brownish, hind coxæ, trochanters and femora mostly reddish; abdomen reddish.

Labeled, "May 14, 1911, R. A. Cushman, collector."

Paratopotypes collected May 15 and 17 in the same year show variation in color and in abdominal sculpture, some having the metapleuræ reddish and the hind trochanters blackish, while others have the transverse furrows of the abdomen more conspicuously longitudinally striate than the type. A paratype labeled "Stafford, Conn., 24, August, 1905, on flowers of goldenrod, W. E. Britton, collector," has the hind coxæ mostly blackish.

MACROCENTRUS (AMICROPLUS) PLESIUS, new species.

Type-locality.—Chapel Hill, Tennessee.

Allotype-locality.—Vienna, Virginia.

Type.—Cat. No. 15277, U.S.N.M.

Female.—Length 3 mm.; closely related to *M. (A.) crambivorus* Viereck, from which it may be separated by the transversely striate propodeum and by the more slender first, dorsal, abdominal segment which is apparently at least three times as long as wide at apex, rounded off and not at all subbicarinate longitudinally.

Allotype.—Differs from *M. (A.) crambivorus* Viereck chiefly in the first, dorsal, abdominal segment not being subbicarinate longitudinally and in the stramineous metapleuræ.

Labeled, "Webster No. 8254, Chapel Hill, Tenn., G. G. Ainslie, collector, and Webster No. 9253, Vienna, Va., R. A. Cushman, collector, reared from *Crambus*."

The atopoparatypes of *M. (A.) crambivorus* Viereck, with the exception of those labeled "from unknown pupa, August 18," all belong to this species which may prove to be a southern race of the former.

APANTELES (APANTELES) LASPEYRESIÆ, new species.

Type-locality.—National Forest, Shasta, California.

Type.—Cat. No. 15278, U.S.N.M.

Female.—Length 3.5 mm.; related to *A. (A.) aristotelis* Viereck, from which it differs especially in the first and second joints of the maxillary palpi and in the labial palpi being blackish, in the mostly brownish stramineous, fore femora, in the brownish stramineous tip of the mid femora, in the mostly brownish stramineous mid tibiae and tarsi, in the wings being brownish with blackish veins and stigma, the latter however stramineous at base; in the propodeum being finely sculptured and dull with a poorly defined areola; in the first, dorsal, abdominal plate which is hardly more than one and one-half times as long as wide at base and with a faint median longitudinal depression on the apical half, and in the second, dorsal, abdominal plate being uniformly sculptured by rather radiating striæ.

Allotype.—Essentially as in the type.

Labeled, "Hopk. U. S. No. 11414a, reared May 11–27, 1912, from *Laspeyresia toreanta* Grote on *Pinus ponderosa*, J. M. Miller, collector."

APANTELES (APANTELES) PHYCODIS, new species.

Type-locality.—Bangalore, India.

Type.—Cat. No. 15279, U.S.N.M.

Female.—Length 2.5 mm. Related to *A. (A.) megathymi* Riley, from the original description of which it differs in the palpi being stramineous, in the legs being yellowish excepting the coxæ, trochanters, basal two-thirds of mid femora, hind femora and apex of hind tibiæ which are black or blackish with the hind femora partly reddish, in the stigma which is yellowish with a blackish border, in the tegulæ which are black, in the areola which is irregularly triangular, in the absence of costulæ, in the first, abdominal plate which is rather wrinkled and provided with a shallow fossa on the apical half, in the second, abdominal plate which is vaguely sculptured.

Allotopotype.—Essentially as in the type except that the apical half of the hind tibiæ and the hind metatarsi are rather blackish.

Labeled, "Parasite on *Phycodes radiata*, Nov. 28, 1911, L. C. Coleman, collector."

APANTELES (APANTELES) PLUSIÆ, new species.

Type-locality.—Bangalore, India.

Type.—Cat. No. 15280, U.S.N.M.

Female.—Length 2.5 mm. Related to *A. (A.) megathymi* Riley, from the original description of which it differs in the legs and tegulæ being colored nearly as in *A. (A.) phycodis* Viereck, in the second, abdominal plate which is intimately united with the third, dorsal, segment, and in the ovipositor which is a little shorter than the abdomen. From the latter species this differs chiefly in the presence of costulæ, in the first, dorsal plate being distinctly narrower at apex than at base and in the second, dorsal plate being virtually sculptureless and less than half as wide at base as at apex.

Allotopotype.—Essentially as in the type.

Labeled, "Parasite on *Plusia agramma*, Feb. 17, 1911, L. C. Coleman, collector."

ATANYCOLIMORPHA, new genus.

Related to *Atanycolus* Foerster, from which it can be distinguished chiefly by the scape which is of the type found in *Caloidimorpha* Viereck, the nonexcavate front and in the absence of foveolæ in the furrow between the second and third, dorsal segments.

Type.—*Atanycolimorpha winnemanæ*, new species.

ATANYCOLIMORPHA WINNEMANÆ, new species.

Type-locality.—Plummers Island, Montgomery County, Maryland.

Type.—Cat. No. 15281, U.S.N.M.

Female.—Length 8 mm. Agrees with the original description of (*Bracon*) *Atanycolimorpha? provancheri* Dalla Torre, except that the

embossed median area of the second, dorsal segment can hardly be said to be short in that it extends fully three-fourths the distance from base to apex.

This species may prove to be the same as the species with which it is compared.

Paratopotypes show variation in length, some being smaller than the type.

This species was found investigating a log of cedar.

CAMPYLONEURUS RUGATOR (Say).

Bracon rugator SAY, Boston Journ. Nat. Hist., vol. 1, 1836, p. 251, female.—

LECONTE, Writ. Th. Say. Ent., vol. 2, 1859, p. 704, female.

Bracon mavoritus CRESSON, Trans. Amer. Ent. Soc., vol. 4, 1872, p. 186, female.

Bracon novitus CRESSON, Trans. Amer. Ent. Soc., vol. 4, 1872, p. 186, male.

CHELONUS (CHELONELLA) BUSSYI, new species.

Type-locality.—Deli, Sumatra.

Type.—Cat. No. 15282, U.S.N.M.

Female.—Length, 3 mm. Apparently related to *C. (C.) orientalis* Szepligeti, from the original description of which it differs in the clypeus being finely punctured, in the mesonotum in front being rather dull and sculptured, in the disk of the scutellum being punctured, the punctured area bounded by foveæ, in the reticulated propodeum, in the first abscissa of the radius being curved, apparently thicker and shorter than the second and not forming a straight line with the second, in the uniformly yellowish scape, in the fore and mid femora being blackish except for the pale base and apex, in the fore and mid tarsi being more or less infuscated but pale at base of each joint, in the hind metatarsus being mostly pale and in the basal three-sevenths of the carapace and the annulus of the hind tibiae being yellowish.

Allotype.—Flagel 22-jointed; mouth of the anal fissure four times as wide as long; otherwise essentially as in the type.

Labeled, "No. 5.1, May?, 1912, reared from *Gnorimoschema*, sp., collected by Dr. L. P. de Bussy."

Named for Dr. L. P. de Bussy.

COELOIDIMORPHA, new genus.

Related to *Coeloides* Wesmæ, from which it differs chiefly in the different scape and in the second, dorsal, abdominal segment not being divided into three lobes by an oblique furrow on each side extending from base to apex.

Type.—*Bracon (Melanobracon) webbi* Viereck.

CRASSOMICRODUS FENESTRATUS, new species.

Type-locality.—Porto Rico.

Type.—Cat. No. 15283, U.S.N.M.

Female.—Length 8 mm. Essentially as in the genotype, from which it differs chiefly in color and in the coarser sculpture of the

propodeum. Black; upper, hind angles of the pronotum and the mesonotum reddish, tegulæ and base of fore wings stramineous, wings blackish except for the almost colorless membrane in the first submarginal and third, discoidal cells; propodeum very coarsely rugose; abdomen smooth and polished and reddish except for the basal half, and apical middle of the first, dorsal segment which are mostly black or blackish.

Labeled. "No. 390."

Received from C. W. Hooker.

EPIRHYSSALUS ATRICEPS (Ashmead).

Rhyssalus atriceps (ASHMEAD) Proc. U. S. Nat. Mus., 1888, p. 628, male, female.

EPIRHYSSALUS LOXOTENLÆ (Ashmead).

Rhyssalus loxotenix ASHMEAD, Proc. U. S. Nat. Mus., 1888, p. 628, male, female.

EPIRHYSSALUS SIMILIS (Ashmead).

Rhyssalus similis ASHMEAD, Proc. U. S. Nat. Mus., 1888, p. 628, male.

EUAGATHIS CRYPTOPHLEBLÆ, new species.

Type-locality.—Davanhalli; Mysore, India.

Type.—Cat. No. 15284, U.S.N.M.

Female.—Length, 5 mm. Judging from the original description, this species is related to *E. flavus* Szepligeti, from which, as described in the original, it differs in the absence of a branch to the second transverse cubitus, in the antennæ being blackish throughout, in the tarsi, all of which are yellowish, in the abdomen, which is entirely yellow, and in the general yellowish instead of reddish yellow color.

Labeled, "Parasite No. ii on *Cryptophlebia carpophaga*, Nov. 30, 1911, L. C. Coleman, collector."

EUTRICHOPSIS OSCINIDIS (Ashmead).

Rhyssalus oscinidis ASHMEAD, Proc. U. S. Nat. Mus., 1888, p. 630, male.

HETEROSPILUS SELANDRIÆ (Ashmead).

Rhyssalus selandriæ ASHMEAD, Proc. U. S. Nat. Mus., 1888, p. 629, female.

HORMIUS TRILINEATUS (Ashmead).

Rhyssalus trilineatus ASHMEAD, Proc. U. S. Nat. Mus., 1888, p. 29, male.

HYSTEROBOLUS, new genus.

This remarkable Euphorine should replace *Euphoridea* Ashmead in Szepligeti's arrangement in the genera Insectorum, where *Euphoridea* Ashmead is misplaced. In Ashmead's arrangement it would seem to be related to *Dinocampus* Foerster, from which it differs radically in the shape of the head, which is almost cubical, being apparently as long antero-posteriorly as seen from above as the transfacial line, and

in the facial line being a little longer than the transfacial line, in the sharply defined notauli, in the prominently elevated and margined scutel, in the venation, which is quite as in *Blacus* Nees, except that the third abscissa is distinctly developed and nearly as long as the recurrent vein, and in the propodeum having a great conical production on each side of the posterior face, the cones extending backward and slightly outward.

Type.—*Hyster obolus mallochi*, new species.

HYSTEROBOLUS MALLOCHI, new species.

Type-locality.—Rosslyn, Virginia.

Type.—Cat. No. 15285, U.S.N.M.

Female.—Length, 2.5 mm.; black, shining excepting the propodeum and metapleuræ, which are dull; head polished excepting the face, which is mostly wrinkled, vertex with a shallow furrow extending from between the lateral ocelli to the occipital carina, malar line apparently as long as the eyes are wide in the middle, clypeus truncate, blackish at base, dark castaneous at apex, labrum and mandibles castaneous, palpi stramineous, antennæ brownish, the first flagellar joint nearly as long as the next two joints combined, flagel 16-jointed, the end joint nearly as long as the two preceding joints combined and blackish, anterior ocellus nearer to the lateral ocelli than the latter are to each other, the shortest distance between the eyes and the lateral ocelli much greater than the distance between the lateral ocelli; upper margin of prothorax and mesopleuræ as well as the mesonotum and scutel castaneous, the lobes of the mesonotum and the scutel partly covered with blackish stains, tegulæ and base of stigma stramineous, wings with a deep brownish stain, rest of stigma and veins mostly blackish, legs brownish stramineous except the hind femora, which are rather reddish with blackish tips, and the hind tibiae, which are rather castaneous, mesopleuræ with a fossa at the hind edge; propodeum rugulose, not areolated; petiole carinate above and laterally, second, dorsal segment rather castaneous with blackish stains, the first segment sculptured, the remaining segments smooth and polished and compressed; exerted portion of ovipositor nearly twice as long as the apical truncature of the abdomen.

Labeled, "Sept. 22, 1912, J. R. Malloch, collector."

Named for my colleague, Mr. J. R. Malloch.

METEORUS LAPHYGMÆ, new species.

Type-locality.—Brownsville, Texas.

Type.—Cat. No. 15286, U.S.N.M.

Female.—Length 4 mm. Closely related to *M. hyphantriæ* Riley, from which it differs apparently only in the uniformly pale stramineous color of the body and its appendages and in the relatively smaller stigma.

Allotype.—Essentially as in the type.

Labeled, "Webster No. 6446, Bur. Ent., U. S. Dept. Agr. July 22-29, 1912, reared from the fall army worm, E. G. Smyth, collector."

This species may prove to be only a race or variety of *M. hyphantrix* Riley.

MONOGONOGASTRA VENTRALIS (Cresson).

Bracon ventralis CRESSON, Proc. Ent. Soc. Phila., vol. 4, 1865, p. 76, female, Mayaguez, Porto Rico, Feb. 5, 1912 (C. W. Hooker).

PERILITUS ELEODIS, new species.

Type-locality.—Argonia, Kansas.

Type.—Cat. No. 15287, U.S.N.M.

Female.—Length 2 mm. Closely related to *P. gastrophysæ* Ashmead, of which it may prove to be only a variety and from which it differs chiefly in the paler color, being more or less stramineous where *P. gastrophysæ* Ashmead is brownish or castaneous, in the more finely sculptured propodeum and post petiole and in the mesopleuræ having rather an indefinitely circumscribed roughened area in place of a roughened fossa.

Allotype.—Essentially as in the type.

Labeled, "Webster No. 8221, E. G. Kelly, reared from *Eleodes suturalis*."

The cocoons are elliptical and whitish, and 3 mm. by 1 mm.

Specimens from Belvidere, Nebraska, received from C. E. Ward and labeled "No. 4994 on *Eleodes suturalis*, May 15, 1891," are mostly stramineous.

According to C. E. Ward the parasitized beetle was confined April 27, 1891, and on the following day a lot of larvæ were noticed crawling about. Thus nearly three weeks elapsed between the time the larvæ left the host and the emergence of the parasites.

APANTELES (PROTAPANTELES) CONGREGATUS (Say).

Neotype-locality.—Greenville, South Carolina.

Neotype.—In the collection of the U. S. National Museum.

Female.—Length 2.5 mm. Related to *A. (P.) griffini* Viereck and *A. (P.) læviceps* Ashmead, from which it may be known by the third, dorsal, abdominal segment being nearly twice as long as the fourth and apparently one and one-half times as long as the second plate, and in the poorly developed median, longitudinal, propodeal carina; from the latter species with which it agrees best in size and color it differs also in the first abscissa of the radius being as long as the transverse cubitus; from the former species it differs also in the entirely blackish antennæ.

Alloneotype.—Essentially as in the neotype. Some specimens in their stramineous color show a relationship to *A. (P.) hemileucæ* Riley. This species is also related to *A. (P.) schizuræ* Ashmead.

Labeled, "bred from *Ceratomia catalpæ*, Sept. 18, 1912, E. B. Mason, collector."

APANTELES (PROTAPANTELES) EMPRETIÆ, new species.

Apanteles empretiæ ASHMEAD, Ms. Smith's. Ins. N. J. (1899), 1900.

Type-locality.—Washington, District of Columbia.

Type.—Cat. No. 12756, U.S.N.M.

Female.—Length 2 mm. Related to *A. (P.) fiskei* Viereck, but readily distinguished from that species by many of the following characters. Subopaque, sericeous; head above smooth and shining, apparently impunctate, face finely punctured, without a median welt, labrum, mandibles, scape and pedicel stramineous, palpi whitish, flagel brownish; thorax closely punctured, the scutellum, however, sparsely punctured with rather large punctures, the interstices polished, mesopleuræ hardly punctured, wings hyaline, costa, stigma, first abscissa of the radius, transverse cubitus and third abscissa of the cubitus brownish, rest of the veins rather stramineous, the transverse cubitus a little shorter than the first abscissa of the radius; legs and tegulæ mostly stramineous including the fore and mid coxæ rather reddish brown, apical two-thirds of hind tibiæ, hind metatarsus and second joint of hind tarsi mostly blackish; abdomen with its first and second plates and most of the third dorsal segment rugulose, black except the membranous part of the first and second, dorsal segments and the first and second, ventral segments which are stramineous; ovipositor hardly exerted.

Allotype.—Essentially as in the type, except that the third, dorsal, abdominal segment is mostly smooth and polished. Cocoons parchment like, separate but arranged side by side on the back of the full-grown larva of the host.

Labeled, "No. 209°, parasite on (*Empretia*) *Sibine stimulea*, Aug. 31, 1888, Div. Ent. U. S. Dept. Agric."

One female paratopotype has the third, dorsal segment almost entirely smooth as in the allotype.

Paratypes labeled "No. 2837°, 11/4, 1885, Div. Ent. U. S. Dept. Agric. and Hyattsville, Md. Aug. 4, 1912, F. Knab" indicate that the third, dorsal, abdominal segment is normally sculptured down the middle with the sides mostly smooth and shining. The new cocoons of the Hyattsville specimens are rather lemon yellow while the old cocoons collected twenty-four years ago are brownish white.

Paratypes labeled "No. 295°, 14/5, 1883, Div. Ent. U. S. Dept. Agric." have the abdominal plates reddish brown with the hind

coxæ somewhat reddish brown or brownish stramineous and the third, dorsal, abdominal segment almost entirely smooth and shining.

Paratypes labeled "Bred from No. 209. Oct. 18, 1906, Orlando, Fla., Oct. 15, 1906, A. W. Morrill, collector," have reddish brown hind coxæ, the third, dorsal, abdominal segment sculptured down the middle and rather yellowish cocoons that are fading to a brownish white color.

The specimens with pale hind coxæ probably represent a southern race of this species.

All the specimens examined were reared from *Sibine stimulea*.

APANTELES (PROTAPANTELES) MAYAGUEZENSIS, new species.

Type-locality.—Mayaguez, Porto Rico.

Type.—Cat. No. 15289, U.S.N.M.

Female.—Length 2 mm. Apparently related to *P. marginiventris* (Cresson), from which it differs especially as follows: Antennæ mostly brownish, palpi stramineous with castaneous tips; hind coxæ mostly black, stramineous beneath; propodeum without a distinct median, longitudinal carina; sides and apex of the apical half of the dorsum of the abdomen mostly black or blackish.

Labeled, "453-455, October 29, 1910."

Received from C. W. Hooker.

OPIUS (UTETES) ANASTREPHÆ, new species.

Type-locality.—Mayaguez, Porto Rico.

Type.—Cat. No. 15290, U.S.N.M.

Female.—Length 3 mm. Related to *Opius (Utetes) interstitialis* Ashmead as originally described and represented by paratypes in the United States National Museum. Like *O. (U.) interstitialis* Ashmead, this species has the notauli developed on the anterior third of the dorsulum but not beyond. Scape and pedicel stramineous, flagel probably blackish; propodeum polished, irregularly reticulated with a basal transverse carina and a median, longitudinal carina on the basal third; first, dorsal, abdominal segment polished, the apical half with a median, longitudinal crista, second, dorsal segment without shallow, oblique furrows at base; exerted portion of ovipositor at least half as long as the abdomen.

Allotype.—Essentially as in the type but with the apical half of the abdomen brownish or blackish.

Labeled, "Reared from *Anastrepha* sp. No. 5063, Sept., 6, 7, 12, 1912, C. W. Hooker, collector."

A female paratopotype has a triangular elevated area on the apical half of the first, dorsal segment, with the base of the triangular area at the apex of the segment.

Family ICHNEUMONIDÆ.

EIPHOSOMA (BRACHIXIPHOSOMA) INSULARIS, new species.

Type-locality.—Mayaguez, Porto Rico.

Type.—Cat. No. 15291, U.S.N.M.

Female.—Length 11 mm. Apparently most closely related to *E. nigrovittatum* Cresson, from the original description of which it can be distinguished by the differently colored legs, the fore and mid coxæ and trochanters being yellowish, the rest of the fore and mid legs mostly stramineous, hind coxæ reddish and yellowish, hind trochanters mostly brownish, hind femora mostly reddish, hind tibiæ mostly dark brownish stramineous, hind tarsi black; abdomen mostly reddish.

Allotype.—Essentially as in the type.

Labeled, "C. W. Hooker, collector, Jan. 27, 29, 1912."

CHRISTOLIMORPHA, new genus.

Sternauli extending back to the hind edge of the mesopleuræ and sending out a branch furrow that extends upward and forward, meeting the prepectal carina near the upper end. Related to *Christolia* Brullé.

Type.—*Christolimorpha plesius*, new species.

CHRISTOLIMORPHA PLESIUS, new species.

Type-locality.—Mayaguez, Porto Rico.

Type.—Cat. No. 15292, U.S.N.M.

Female.—Length 6.5 mm. Closely related to (*Christolia*) *Christolimorpha ruficeps* (Cameron), from which it may be known by the propodeal processes being more conical and the only part of the propodeum that is luteous, by the mostly black first, dorsal, abdominal segment and by the nervellus being without a branch.

Allotopotype.—Essentially as in the type except that the spiracles of the first, abdominal segment are nearer to each other than to the apex and the propodeal processes are represented by a smooth whitish area.

Labeled, "C. W. Hooker, collector, Jan. 12, 1912."

DIAPETIMORPHA, new genus.

Apparently related to *Diapetus* Cameron, from the original description of which it differs in the propodeum being rugose or otherwise sculptured and not broadly depressed at base in the middle, in the spiracles being oval, in the apical transverse carina being confused with the rugæ except at the depressed processes, in the cubitus not uniting with the radius, in the recurrent vein which is not interstitial, in the notauli not meeting, in the spiracles of the first dorsal, abdominal segment which are nearer to the apex than to each other, in the

clypeus which is not separated from the face by a furrow, in the nervulus and basal vein being interstitial, and in the nervellus which is branched below the middle. This genus belongs in the Mesostenini.

Type.—*Cryptus armatus* Ashmead.

ENICOSPILUS HELIOTHIDIS, new species.

Type-locality.—Deli, Sumatra.

Type.—Cat. No. 15293, U.S.N.M.

Female.—Length 14.5 mm. Judging from Morley's arrangement of Asiatic species of this genus this species appears to be related to *E. reticulatus* Cameron, but that species is said to have the stigma nigrescent whereas in the present species the stigma is stramineous. The distal corneous mark is linear and appearing as an interrupted tail to the proximal corneous mark.

Allotype.—Essentially as in the type.

Labeled, "No. 2.2.4, 2.2.5, and 2.2.6, parasite of *Heliothis obsoleta*, June, 1911, collected by Dr. L. P. de Bussy."

ETHÆMORPHA, new genus.

Apparently related to *Etha* Cameron, from the original description of which it differs in the pentangular areolet which is distinctly angled below, in the recurrent vein being received beyond the middle, in the antennæ not being thickened beyond the middle, in the teeth of the mandibles not being equal, in the notauli being absent, in the third abdominal segment not becoming dilated toward the apex, and in the tarsi of the fore legs not being twice as long as the fore tibiæ and with the exception of the first joint not incised at the base.

Type.—*Cryptus similis* Cresson.

ITOPLECTIS EVETRIÆ, new species.

Type-locality.—Yreka, California.

Type.—Cat. No. 15294, U.S.N.M.

Male.—Length 6 mm. Compared with a female homotype of *Pimpla atrocoxalis* Cresson this species differs in color in having blackish tips to the hind femora, in having the hind tibiæ and tarsi black except for a whitish annulus on the basal half of the former, the basal two-thirds of the hind metatarsus mostly and the base of the second and third joints of the hind tarsi whitish, in the mid legs which have a whitish annulus on the basal half of the reddish tibiæ, while the tarsi are colored as in the hind legs and in the black flagel. Structural differences are the presence of a ramellus and almost perfectly round propodeal spiracles.

Labeled, "Hopk. U. S. No. 11415 b., reared May, 1912, prob. pars. on *Evetria* sp., *Pseudostuga taxifolia* cone; J. M. Miller, collector."

MESOCHORUS PLUSIÆPHILUS, new species.

Type-locality.—Bangalore, India.

Type.—Cat. No. 15295, U.S.N.M.

Female.—Length 2.5 mm. In Thomson's classic revision of some European species of this genus this species would appear to come nearest to his group *ee*, from which it can readily be distinguished by the nervulus, which is antefurcal. Stramineous; apical half of antennæ mostly brownish, face punctured, mandibles with brown tips; wings including stigma concolorous and yellowish excepting the veins which are brownish, nervulus shorter than the distance between it and the basal vein, areolet quadrangular and almost forming a right-angled triangle; hind tibiæ nearly as broad as the hind femora; propodeum blackish above, areola hexagonal, narrower at base than at apex, the costulæ joining the former nearer the apex than the base; petiole as long as the post-petiole and the lateral margins of the apical half blackish, lateral margins of the second, dorsal, abdominal segment blackish; sheaths of the ovipositor dark brown or blackish and a little longer than the post-petiole.

Labeled, "Parasite No. 11 on *Plusia agramma*, December 17, 1911; L. C. Coleman, collector."

This is a hyperparasite and probably parasitic on *Apanteles plusiæ* Viereck or on a *Meteorus*.

MESOSTENIMORPHA, new genus.

Habitus as in *Crypturopsis* Ashmead, with which in the main it agrees, except in the areolet, which is as in *Cryptus* Fabricius, in the presence of an apical transverse carina, in addition to the propodeal spines and in having the median longitudinal carinæ feebly developed.

Type.—*Cryptus nebraskensis* Ashmead.

MYRMICOMORPHA, new subgenus.

Related to *Pezomachus* Gravenhorst. from which it can be separated by the mesonotum and propodeum being separated by an antero-posteriorly long furrow, at the bottom of which is a suggestion of a scutel, the scutel being as long dorsally as the pronotum.

Type.—*Pezomachus* (*Myrmicomorpha*) *perniciosa*, new species.

PEZOMACHUS (MYRMICOMORPHA) PERNICIOSA, new species.

Type-locality.—Brownsville, Texas.

Type.—No. 15296, U.S.N.M.

Female.—Length 4 mm. Has characters in common with *P. spiraculus* Strickland, from which it may be distinguished especially by the slender antennæ, which are rather brownish stramineous except at the tip where they are fuscous, by the first joint of the flagel being nearly eight times as long as thick at apex, by the almost uniformly

brownish stramineous body and appendages, by the completely exareolate propodeum which is subconical and virtually without carinae except for vestiges of the apical transverse carina on each side of this sclerite.

Labeled, "Webster No. 6446, Bur. Ent. U. S. Dept. Agric., July 24-29, 1912, reared from cocoons of *Meteorus laphygmae* Viereck; E. G. Smyth, collector."

The flagel is 20-jointed in the type and 19-jointed in a paratopotype.

NEOTHERONIA WINNEMANÆ, new species.

Type-locality.—Plummer's Island, Maryland.

Type.—Cat. No. 15297, U.S.N.M.

Female.—Length 11.5 mm. Related to *N. septemtrionalis* Krieger, from the original description of which it differs in the following particulars: Flagel 47-jointed; the blackish spots of the fore wings occupying the apex of the marginal cell and the upper inner corner of the second submarginal cell; first, dorsal, abdominal segment with a transverse blackish band just behind the spiracles; apical tarsal joint of hind tarsi blackish. The type was taken by the writer August 4, 1912, between 5 and 6 p. m., as it was flying through the woods.

In a paratopotype collected November 9, 1902, by H. S. Barber, the seventh, dorsal, abdominal segment has a subbasal transverse blackish band.

ORTHOCRYPTUS, new genus.

Related to *Apsilops* (Foerster) Ashmead, from which it differs chiefly in the malar line, which is shorter than the mandibles are wide at base, in the more typically Cryptine propodeum in which the basal transverse carina and the apical transverse carina alone are prominent, and in the almost slitlike propodeal spiracles.

Type.—*Cryptus monticola* Ashmead.

PHYGADEUON (PLESIGNATHUS) EPOCHRÆ, new species.

Type-locality.—Bozeman, Montana.

Type.—Cat. No. 15298, U.S.N.M.

Female.—Length 3 mm. Judging from Schmiedeknecht's arrangement of European species of *Phygadeuon* this species is related to *P. lapponicus* Thomson and *P. læviventris* Thomson. From the former, as described by the author cited, it differs in the brownish stramineous coxæ, in the blackish stigma, in the outer angle of the discocubital cell being obtuse, and in the first and second joints of the flagel in the female being brownish. From the latter species, as described by the author cited, it differs in the rather slender femora, in the third, dorsal, abdominal segment of the male being brownish

stramineous, in the hind coxæ being mostly blackish, and in the hind femora being brownish stramineous beneath.

Allotopotype.—Essentially as in the type, except as noted above, and in having the flagel black throughout.

Labeled, "Parasite on *Epochra canadensis*, May 27, 1912." Received by the Bureau of Entomology, United States Dept. of Agriculture, from Prof. R. A. Cooley.